File No. A34355-070015.0181

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	: Younger Ahluwalia		
Serial No.	: 09/955,395	Examiner	: Ruddock, Ula
Filed	: September 18, 2001	Art Unit	: 1771
For	: FIRE RESISTANT FABRIC MATERIAL		

AMENDMENT

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Box 1450, Alexandria, VA 22313-1450.

October 7, 2003
Date of Deposit

Neil P. Sirota
Attorney Name

Signature

38,306
PTO Reg. No.

October 7, 2003
Date of Signature

Commissioner for Patents
Box 1450
Alexandria, VA 22313-1450

Sir:

This paper is filed in response to the Official Action mailed April 7, 2003 for the above-identified patent application. A three-month extension to the period for responding to the Official Action is requested, and the appropriate fee is enclosed.

Reconsideration and withdrawal of the rejections of claims set forth in the Official Action of April 7, 2003, are respectfully requested in view of the following remarks.

Status of the claims

Claims 1-13 are pending.

Claims 1-13 are rejected under 35 U.S.C. § 103.

Restriction Requirement

Applicant affirms the election of claims 1-13 of Group I without prejudice to the prosecution of the subject matter of non-elected claims. Claims 14-19 have been withdrawn from consideration.

Rejection under 35 U.S.C. § 103(a)

The Examiner has rejected pending claims 1-13 under 35 U.S.C. § 103(a) as being unpatentable over Ahluwalia (US Patent No. 5,965,257) in view of GB 2167060 (GB '060) or Dombeck (US Patent No. 6,228,497) or Dugan et al. (US Patent No. 4,994,317). The Examiner alleges that Ahluwalia discloses a structural article comprising a substrate having an ionic charge coated with a coating having essentially the same ionic charge and that the coating consists of a binder and filler. The Examiner also alleges that Ahluwalia discloses the claimed invention except for the teaching that the filler material also includes clay and that the material comprises 65-90% glass fibers, 20-80% clay filler, and from 80-20% weight of acrylic latex binder material.

The Examiner contends that GB '060 discloses a fire resistant material comprising glass wool fibers and one or more selected clays, which provide an endothermic reaction in the fire resistant material. The Examiner contends that Dugan et al. discloses a fabric suitable for use as a flame barrier fabric comprising a flame durable textile fabric that comprises inorganic yarns, such as glass, and incorporates hydrated clay in a silicone layer to provide enhanced resistance to

flame and heat. The Examiner contends that Dombeck discloses a high temperature resistant glass fiber composition comprising glass fibers and a latex binder. The Examiner alleges that Dombeck also discloses clay fillers frequently added to inorganic fiber products to improve their fire resistance. The Examiner alleges that it would have been obvious to one of skill in the art at the time of the invention was made to have used the clay filler of either GB '060 or Dugan et al. or Dombeck in the structural article of Ahluwalia, motivated by the desire to increase the flame and heat resistance of the article.

The Examiner also alleges that the optimizing amounts of glass fibers, clay filler and binder material in the composition are result effective variables. Thus the Examiner concludes that it would have been obvious to one of skill in the art to use a material comprising 65-90% glass fibers, 20-80% clay filler, and from 80-20% weight of acrylic latex binder material, since it has been discovered that an optimum value of a result effective variable involves only routine skill in the art.

Applicant respectfully disagrees. To establish a *prima facie* case of obviousness, three basic criteria must be met. *M.P.E.P.* § 2142. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the teachings. Second, there must be a reasonable expectation of success. Third, the combined prior art references must teach or suggest all of the claim limitations. The reasonable expectation of success and the teaching or suggestion to make the claimed combination must be found in the prior art *and* not be based on applicant's disclosure. *In re Vaeck* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1981).

The present invention relates to a fire resistant fabric material for use in clothing and furniture and exhibits desired properties, such as good drapability. The material comprises a substrate having an ionic charge, which is coated with a coating having essentially the same ionic

charge. The coating consists essentially of (1) a filler material comprising clay and (2) a binder material, which bonds the filler material together and to the substrate. In addition, the same ionic charge of the coating functions to prevent the coating from bleeding through the substrate.

Ahluwalia teaches a structural article comprising a substrate having an ionic charge, which is coated with a coating having essentially the same ionic charge and the coating comprises a filler and binder material. The binder bonds the filler material together and to the substrate. In contrast to the present invention, Ahluwalia does not teach a fabric material useful for imparting fire resistance to clothing and furniture. Although Ahluwalia does make mention of a "coated fabric," the Ahluwalia material is not a fabric as that term is understood in the present invention, e.g.., for use in clothing and furniture upholstery; the Ahluwalia material is, in fact, "rigid in nature" and only "flexible enough to be rolled up." (col. 6, lines 32-33). As pointed out in the present specification, the structural article taught by Ahluwalia lack adequate drapability characteristics. (specification, page 4, para 0010). Furthermore, Ahluwalia does not teach the use of clay as a filler material.

GB '060 teaches a structural fire resistant material comprising synthetic mineral fibers (including glass wool), clay and a binder. The fire resistant material is made by suspending the components in a fluid or gas to create a slurry, separating the slurry through a screen to obtain a mat or solids that can be pressed and/or dried, and drying and/or curing to set the binder (page 3, lines 2-11). Although GB '060 teaches the use of clay to make a fire resistant material, it does not provide the skilled artisan with any motivation or suggestion that clay may or should be combined with a binder to make a charged coating which, when applied to a substrate having essentially the same charge, does not bleed through the substrate.

The addition of clay allows the fabric material to be sufficiently flexible for use in clothing and furniture upholstery. GB '060 does not teach the addition of clay to impart the

characteristic of flexibility to the material. Like Ahluwalia, GB '060 teaches a structural article, not a fabric. Thus, one of skill in the art would not have found any motivation in GB '060 to add clay to the charged coating of Ahluwalia to produce a drapable fabric. Since there is no motivation found in either GB '060 or Ahlwalia to combine the references, one of skill in the art would not have any reasonable expectation of success. Therefore, the cited references do not render the present invention obvious to the skilled artisan.

Similarly, Dombeck teaches a fire resistant glass fiber (not a fabric) which is made by mixing together glass fibers, a binder and calcium carbonate. Dombeck further teaches that clay may be added to improve fire resistance. Dombeck does not teach or provide motivation for the skilled artisan to produce a fire resistance fabric with a charged coating consisting essentially of clay and a binder which, when applied to a substrate having essentially the same charge, does not bleed through the substrate. Neither does Dombeck teach the addition of clay to impart the characteristic of flexibility to the material. Therefore, the skilled artisan would not have found any motivation in Dombeck to add clay to the charged coating of Ahluwalia to produce a drapable fabric. There is no motivation or suggestion in Dombeck or Ahluwalia to combine the references, leaving the skilled artisan with no reasonable expectation of success. Therefore, the cited references do not render the present invention obvious to the skilled artisan.

Dugan et al. teach a multilayered fire resistant material which comprises a flame durable textile fabric substrate, a flexible silicone polymer layer, and a heat reflective paint. Dugan et al. further teach that clay may be added to the silicone layer to enhance flame resistance. While Dugan et al. teach a fire resistant fabric, there is no teaching that the optional clay component of Dugan et al. may or should be used to make a charged coating. Moreover, Dugan et al. do not teach the addition of clay to impart the characteristics of flexibility to the material. Therefore,

there is no motivation or suggestion in either Dugan et al. or Ahluwalia to combine the references. Thus, one of skill in the art would have no expectation of success.

With regard to claims 12 and 13, applicant submits that the addition of the clay in the present invention is for the purpose of producing a fabric having desired drapability. None of the references cited by the Examiner contain this teaching. Thus, it is not seen how the recited amounts of clay filler would be considered a result effective variable for the production of a fabric material with increased strength and flame resistance.

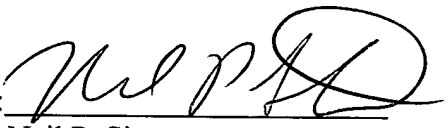
For the foregoing reasons, applicant respectfully requests withdrawal of the rejection of claims 1-13 under 35 U.S.C. § 103(a).

CONCLUSION

In view of the foregoing remarks, applicant respectfully requests withdrawal of the rejections and allowance of the pending claims. Applicant does not believe that any fee, other than an extension of time fee, is required in connection with this submission. However, should any other fee be required, the Commissioner is hereby authorized to charge any such fee to Deposit Account 02-4377.

Respectfully submitted,
BAKER BOTTS L.L.P.

Dated: October 7, 2003

By: 

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